Laurie Kral

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

James E. Risch, Governor
Toni Hardesty, Director

December 21, 2006

Certified Mail No. 7005 1160 0000 1550 8517

Charles H. Ross
Agrium Conda Phosphate Operations
3010 Conda Road
Soda Springs, ID 83726

RE: Facility ID No. 029-00003, Agrium, Soda Springs
Final PTC, Granulator Drum

Dear Mr. Ross:

The Idaho Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-060324 to Agrium for the Granulator Drum replacement project, in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho).

This permit is based on your permit application received on August 14, 2006. This permit is effective immediately and replaces Section 4, Granulation Plant, of PTC No. P-040320 issued on April 28, 2006, the terms and conditions of which no longer apply. This permit does not release Agrium from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

This permit to construct does not contravene any existing Tier I operating permit conditions, therefore the process or equipment may be operated in accordance with the permit to construct before the Tier I operating permit is issued. Since this PTC was processed in accordance with 209.05.a, the permit to construct will be incorporated into the Tier I operating permit at the time of renewal.

Pursuant to General Provision 5 of your permit, it is required that Construction and Operation Notification be provided. Please provide this information as listed to DEQ's Pocatello Regional Office at the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Pocatello Regional Office
444 Hospital Way, #300
Pocatello, ID 83201

A representative of the Pocatello Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Ken Hanna at (208) 373-0283 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS/KH/bf Project No. P-060324

Enclosures

G:\Air Quality\Stationary Source\SS Ltd\PTC\Agrium\P-060324\Final\PTC Final Permit Ltr.doc

c: Pete Wagner, Pocatello Regional Office
Bill Rogers, Permit Coordinator
Ken Hanna, Permit Writer (Ltr Only)
Marilyn Seymore/ Pat Rayne, Air Quality Division
Laurie Kral, US EPA Region 10
Permit Binder
Source File
Phyllis Heitman (Ltr Only)
Reading File (Ltr Only)

	Air Quality **PERMIT TO CONSTRUCT** State of Idaho Department of Environmental Quality	**PERMIT No.:** P-060324 **FACILITY ID No.:** 029-00003 **AQCR:** 61 **CLASS:** A **SIC:** 2874 **ZONE:** 12 **UTM COORDINATE (km):** 455.8, 4731.8

1. **PERMITTEE** Nu-West Industries, Inc.; Agrium Conda Phosphate Operations			
2. **PROJECT** Granulation Plant, Granulator Drum Replacement Project			
3. **MAILING ADDRESS** 3010 Conda Road	**CITY** Soda Springs	**STATE** ID	**ZIP** 83276
4. **FACILITY CONTACT** Coleman Kavanagh	**TITLE** Environmental Supervisor	**TELEPHONE** (208) 547-4381 ext. 263	
5. **RESPONSIBLE OFFICIAL** Charles H. Ross	**TITLE** General Manager	**TELEPHONE** (208) 547-4381	
6. **EXACT PLANT LOCATION** 7 miles north of Soda Springs, 1.2 miles east of Highway 34		**COUNTY** Caribou	
7. **GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS** Phosphate-based fertilizer products			

8. **GENERAL CONDITIONS**

This permit is issued according to IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200, et seq.

KEN HANNA, PERMIT WRITER
DEPARTMENT OF ENVIRONMENTAL QUALITY

MIKE SIMON, STATIONARY SOURCE PROGRAM MANAGER
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED: December 21, 2006

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Acronyms, Units, and Chemical Nomenclature

AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
CFR	Code of Federal Regulations
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
MACT	Maximum Achievable Control Technology
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
O&M	operations and maintenance
P_2O_5	phosphorus pentoxide
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PTC	permit to construct
SIC	Standard Industrial Classification
T/yr	tons per year
UTM	Universal Transverse Mercator

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-060324		
Permittee:	Nu-West Industries, Agrium Conda Phosphate Operations	**Facility ID No. 029-00003**
Location:	Soda Springs	

1. PERMIT TO CONSTRUCT SCOPE

Purpose

1.1 The purpose of this PTC revision is to address the replacement of the Granulation Drum assembly, stack, and ancillary equipment at the Granulation Plant.

1.2 This PTC replaces Section 4, Granulation Plant, of the following PTC, the terms and conditions of which shall no longer apply:

- PTC No. P-040320, Section 4, Granulation Plant, issued on April 28, 2006

2. GRANULATION PLANT

Emission Limits

2.1 Fluoride - Diammonium and/or Monoammonium Phosphate Process Line

In accordance with 40 CFR 63.623(a), on and after the date on which the performance test required to be conducted by 40 CFR 63.7 and 63.626 is completed, no owner or operator subject to the provisions of 40 CFR Part 63, Subpart BB shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 29.0 grams/metric ton of equivalent P_2O_5 feed (0.0580 lb/ton).

2.2 PM - Process Weight Rate Limitations

In accordance with IDAPA 58.01.01.701, no person shall emit into the atmosphere from any process or process equipment commencing operation on or after October 1, 1979, PM in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in pounds per hour, and PW is the process weight in pounds per hour.

a. If PW is less than 9,250 lb/hr,

$$E = 0.045(PW)^{0.6}$$

b. If PW is equal to or greater than 9,250 lb/hr,

$$E = 1.10(PW)^{0.25}$$

Operating Requirements

2.3 Pressure Drops and Flow Rates for Wet Scrubbers

In accordance with 40 CFR 63.624, on or after the date on which the performance test required to be conducted by 40 CFR 63.7 and 63.626 is completed, the owner/operator using a wet scrubbing emission control system must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to the requirements of 40 CFR 63.625(f)(1) or (2).

2.4 Granulator Drum Replacement

The permittee shall permanently discontinue operation of the existing granulator drum after the replacement granulator drum is installed. If the existing granulator drum is proposed to be brought back into operation, it shall be considered to be a new emissions unit and shall be subject to permitting in accordance with IDAPA 58.01.01.200 and 205 (40 CFR 52.21(b)(33)(iv)).

Monitoring and Recordkeeping Requirements

2.5 Throughput Monitoring Systems

In accordance with 40 CFR 63.625(a), each owner or operator of a new or existing Diammonium and/or Monoammonium phosphate process line or granular triple superphosphate process line subject to the provisions of 40 CFR Part 63, Subpart BB shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of ±5% over its operating range.

2.6 P_2O_5 Throughput

In accordance with 40 CFR 63.625(b), each owner or operator of a new or existing Diammonium and/or Monoammonium phosphate process line or granular triple superphosphate process line subject to the provisions of 40 CFR Part 63, Subpart BB shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in metric ton/hour of phosphorus bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of 40 CFR 63.625(a) and then by proceeding according to 40 CFR 63.626(c)(3).

2.7 Pressure Drop Across Each Scrubber

In accordance with 40 CFR 63.625(c)(1), each owner or operator of a new or existing Diammonium and/or Monoammonium phosphate process line, granular triple superphosphate process line, or granular triple superphosphate storage building using a wet scrubbing emission control system shall install, calibrate, maintain, and operate a monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ±5% over its operating range.

2.8 Liquid Flow Rate of Each Scrubber

In accordance with 40 CFR 63.625(c)(2), each owner or operator of a new or existing Diammonium and/or Monoammonium phosphate process line, granular triple superphosphate process line, or granular triple superphosphate storage building using a wet scrubbing emission control system shall install, calibrate, maintain, and operate a monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of ±5% over its operating range.

2.9 Scrubber Pressure Drop and Liquid Flow Rate Ranges

Following the date on which the performance test required in 40 CFR 63.626 is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in 40 CFR Part 63, Subpart BB must establish allowable ranges for operating parameters using the methodology specified in either 40 CFR 63.625(f)(1) or (2).

2.10 Urea Storage Baghouse Pressure Drop

2.10.1 The permittee shall install, calibrate, maintain, and operate, in accordance with manufacturer's specifications, equipment to continuously measure the pressure differential across the baghouse.

2.10.2 The pressure drop across the baghouse shall be maintained within the manufacturer's and O&M Manual specifications when it is operated. Documentation of both the manufacturer's and O&M Manual operating pressure drop specifications shall remain on site at all times and shall be available to DEQ representatives upon request.

2.10.3 The permittee shall monitor and record the pressure drop across the baghouse on a weekly basis when it is operated. The most recent two years' compilation of data shall be kept on-site, in a log, and shall be made available to DEQ representatives upon request.

2.11 Performance Testing for Existing Units

On or before the applicable compliance date in 40 CFR 63.630 and once per annum thereafter, each owner or operator of a phosphate fertilizers production plant subject to the provisions of 40 CFR Part 63, Subpart BB shall conduct a performance test to demonstrate compliance with the applicable emission standard for each existing Diammonium and/or Monoammonium phosphate process line. The owner or operator shall conduct the performance test according to the procedures in 40 CFR Part 63, Subpart A and in 40 CFR 63.626.

2.12 Performance Testing for New Units

As required by 40 CFR 63.7(a)(2) and once per annum thereafter, each owner or operator of a phosphate fertilizer production plant subject to the provisions of 40 CFR Part 63, Subpart BB shall conduct a performance test to demonstrate compliance with the applicable emission standard for each new Diammonium and/or Monoammonium phosphate process line. The owner or operator shall conduct the performance test according to the procedures in 40 CFR Part 63, Subpart A and in 40 CFR 63.626.

2.13 Performance Test Methods

In conducting performance tests, each owner or operator of an affected source shall use as reference methods and procedures the test methods in 40 CFR part 60, Appendix A, or other methods and procedures as specified in 40 CFR 63.626, except as provided in 40 CFR 63.7(f).

2.14 Performance Testing - Fluorides

Each owner or operator of a new or existing Diammonium and/or Monoammonium phosphate process line shall determine compliance with the applicable total fluorides standards in 40 CFR 63.622 or 63.623, as specified in 40 CFR 63.626(c).

2.15 **Operations and Maintenance Manual Requirements**

Within 60 days after startup, the permittee shall have developed an Operations and Maintenance (O&M) Manual for the Urea Storage Baghouse, which describes the procedures that will be followed to comply with General Provision 2 and the air pollution control device requirements contained in this permit. The manual shall remain on site at all times and shall be available to DEQ representatives upon request.

Reporting Requirements

2.16 **MACT Performance Test Report**

In accordance with 40 CFR 63.627(c), the owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 as follows:

2.16.1 Performance Test Report. As required by 40 CFR 63.10, the owner or operator shall report the results of the initial and annual performance tests as part of the notification of compliance status required in 40 CFR 63.9.

2.16.2 Excess Emissions Report. As required by 40 CFR 63.10, the owner or operator of an affected source shall submit an excess emissions report for any exceedance of an operating parameter limit. The report shall contain the information specified in 40 CFR 63.10. When no exceedances of an operating parameter have occurred, such information shall be included in the report. The report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, the owner or operator shall report quarterly until a request to reduce reporting frequency is approved, as described in 40 CFR 63.10.

2.16.3 Summary Report. If the total duration of control system exceedances for the reporting period is less than one percent of the total operating time for the reporting period, the owner or operator shall submit a summary report containing the information specified in 40 CFR 63.10 rather than the full excess emissions report, unless required by the Administrator. The summary report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half.

2.16.4 If the total duration of control system operating parameter exceedances for the reporting period is one percent or greater of the total operating time for the reporting period, the owner or operator shall submit a summary report and the excess emissions report.

3. PERMIT TO CONSTRUCT GENERAL PROVISIONS

General Compliance

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.

[Idaho Code §39-101, et seq.]

2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.

[IDAPA 58.01.01.211, 5/1/94]

3. Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules and regulations.

[IDAPA 58.01.01.212.01, 5/1/94]

Inspection and Entry

4. Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:

   a. Enter upon the permittee's premises where an emissions source is located or emissions related activity is conducted, or where records are kept under conditions of this permit;

   b. Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;

   c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

   d. As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108]

Construction and Operation Notification

5. The permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211:

   a. A notification of the date of initiation of construction, within five working days after occurrence;

b. A notification of the date of any suspension of construction, if such suspension lasts for one year or more;

c. A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date;

d. A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and

e. A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211, 5/1/94]

Performance Testing

6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

   All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

   Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00]

Monitoring and Recordkeeping

7. The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Records of monitoring information shall include, but not be limited to the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 5/1/94]

Excess Emissions

8. The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

[IDAPA 58.01.01.130-136, 4/5/00]

Certification

9. All documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

[IDAPA 58.01.01.123, 5/1/94]

False Statements

10. No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit, or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

Tampering

11. No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Transferability

12. This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

[IDAPA 58.01.01.209.06, 4/11/06]

Severability

13. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[IDAPA 58.01.01.211, 5/1/94]

Air Quality Permitting
Statement of Basis

December 12, 2006

Permit to Construct No. P-060324

Nu-West Industries, Agrium Conda Phosphate Operations
Soda Springs, ID

Facility ID No. 029-00003

Prepared by:

Ken Hanna, Permit Writer
AIR QUALITY DIVISION

FINAL PTC

Table of Contents

Acronyms, Units, and Chemical Nomenclatures

acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
Btu	British thermal unit
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
gpm	gallons per minute
gr	grain (1 lb = 7,000 grains)
HAPs	Hazardous Air Pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOx	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	sulfur dioxide
SOx	sulfur oxides
T/yr	tons per year
$\mu g/m^3$	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

2. FACILITY DESCRIPTION

From Agrium's raw materials of phosphoric acid, sulfuric acid and ammonia, two different grades of granular fertilizer are produced: Monoammonium Phosphate (MAP) (11-52-0); and Ammonium Phosphate Sulfate (APS) (16-20). The basic reaction utilized for all products is the neutralization of acid with ammonia. The neutralization reaction is exothermic. This heat produces steam, which is responsible for most of the plume of steam out of the stack. Residual steam and minor amounts of particulates are emitted through the free standing stack adjoining the building. At various points in the process, dust, fluorine fumes, or ammonia fumes are generated. A weak acid solution is pumped through the scrubbers to capture the fumes. This liquor is pumped back to the pre-neutralizer tank and made into product. Phosphoric acid from the Phosphoric Acid Plant is pumped to the pre-neutralizing tank where it is mixed with sulfuric acid and ammonia to certain specifications depending on the product being made. Ammonia is also added to a pipe-cross reactor to finish ammoniation of the product in a process called reverse titration. The ammoniation also serves to dry the granular product before the product is discharged. Ammonia comes into the plant by rail car and is unloaded by granulation plant operators into the ammonia sphere. From the granulator, the product is discharged into the rotary dryer where moisture is removed. From the dryer, the product goes by belt conveyor to a screen distribution screw, to four screens that separate the oversized and undersized granules. The oversized granules go to the cage mills where they are broken up and sent back to the granulator. The under sized material goes directly back to the granulator as recycle. Also, some of the on-size product is recycled back to the granulator to help maintain consistent size and moisture of the product. The final product is cooled in a bulk flow cooler. Afterwards, it is coated with a dust control agent. This cooled and coated product is then transferred to shipping via conveyor belt.

3. FACILITY / AREA CLASSIFICATION

Nu-West Industries, Agrium Conda Phosphate Operations (hereafter referred to as Agrium or Nu-West) is defined as a major facility for purposes of the Title V Program in accordance with IDAPA 58.01.01.008.10, because the facility has a potential to emit (PTE) for SO_2 and NO_x of over 100 T/yr for each pollutant. Nu-West is also defined as a designated facility in accordance with IDAPA 58.01.01.006.26 and 58.01.01.205 [40 CFR 52.21(a)] (sulfuric acid plant). For purposes of the PSD Program, the Nu-West facility is classified as a "major stationary source" per IDAPA 58.01.01.205 [40 CFR 52.21b(1)] since it has the potential to emit over 100 T/yr of two regulated NSR pollutants (SO_2 and NO_x) and it is on the list of designated facilities. The AIRS classification is "A" because the facility has the PTE of over 100 T/yr of a regulated air pollutant. The SIC code for this facility is 2874 which is defined as a phosphate fertilizer production plant.

The Nu-West facility is located within AQCR 61 and Universal Transverse Mercator (UTM) Zone 12. The facility is located in Caribou County, which is designated as attainment or unclassifiable for all criteria air pollutants (i.e. SO_2 , NO_x , CO, PM_{10}, and lead).

No changes to the AIRS facility classification are needed as a result of this PTC

4. APPLICATION SCOPE

This project is for the replacement of the granulator drum assembly and associated ancillary equipment within the granulated fertilizer plant including the following: relocating the pipe cross reactor discharge

nozzle and minimizing the size of the ridgepole; installation of a motorized lump breaker; replacement of the discharge hood to minimize entrainment of granular material from the rotating grizzly; replacement of the granulator discharge chute and corroded ducts to facilitate ease of cleaning; and replacement of the granulator stack. The new equipment will be functionally equivalent to the equipment being replaced, and Agrium has indicated these changes will neither increase nor decrease fertilizer production capacity.

4.1 Application Chronology

June 7, 2006	NSR non-applicability info received.
June 22, 2006	Additional NSR non-applicability info received.
August 14, 2006	PTC application received.
September 12, 2006	Application was declared complete.
November 16, 2006	A draft PTC was provided to Agrium for review.
November 21, 2006	Comments were received from Agrium on the draft PTC.
December 12, 2006	The PTC processing fee was received.

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this PTC action.:

5.1 Emissions Inventory

Potential emissions from the granulation plant (both criteria and TAPs) will not change as a result of this project since the existing equipment is being replaced with functionally equivalent equipment. Estimates of Baseline Actual Emissions and Projected Actual Emissions as defined under IDAPA 58.01.01.205 [40 CFR 52.21(b)] are also needed for the specific purpose of determining if this project is a "major modification" of a major facility. This information is provided in Table 5.1, and details of the analysis to determine in the project is "major" is provided in the Regulatory Review Section below.

Table 5.1 PSD ANALYSIS EMISSIONS INCREASE FOR EXISTING UNITS - FLUORIDE

Source	Emissions - Per Year (T/YR)	
	Baseline Actual Emissions (BAE)	Projected Actual (PAE)
Granulation Plant Projected Actual Emissions (PAE)	---	6.04
Granulation Plant Baseline Actual Emissions (BAE) (average of the highest 2-year period)	5.75	---
Difference = PAE Total - BAE Total	6.04 - 5.75 = 0.29	
Significant Emission Rate	3	
Does the Difference Exceed Significant (Y/N)	N	

5.2 Modeling

Modeling is not necessary for this project, since potential emissions from the granulation plant will not increase as a result of this project. In fact, it is noted that modeled/actual concentrations of emissions will actually decrease, because the new stack with provide improved dispersion as a result of a diameter reduction from 118 to 72 inches, a height increase from 120 to 140 feet, and a velocity increase from 20 to 54 feet per second.

5.3 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC.

IDAPA 58.01.01.201, 205.03..... Permit to Construct Required

The facility's proposed project does not meet the permit to construct exemption criteria contained in Sections 220 through 223 of the Rules. Also, this project is a minor modification to a major facility and the requirements under Sections 200 through 228 apply. Therefore, a PTC is required.

IDAPA 58.01.01.203..... Permit Requirements for New and Modified Stationary Sources

The applicant has shown to the satisfaction of DEQ that the facility will comply with all applicable emissions standards, ambient air quality standards, and toxic increments.

IDAPA 58.01.01.205..... PTC Requirements for Major Facilities or Major Modifications

IDAPA 58.01.01.205.01 [40 CFR 52.21(a)(2)(iv)]. The purpose of this project is to replace the granulator drum assembly and ancillary equipment, including the stack, at the granulation plant with equipment that is identical to or functionally equivalent to the existing equipment. This project does not constitute a "major modification" based on the following analysis.

A project is a major modification for a regulated NSR pollutant if it causes two types of emissions increases - a significant emissions increase and a significant net emissions increase. The project is not a major modification if it does not cause a significant emissions increase. These rules specify a two part test to make this determination. The first test is used to determine if the project will cause a significant emissions increase, and this is given by 40 CFR 52.21(a)(2)(iv)(b) through (f). The second test, if required, is used to determine if the project will cause a significant net emissions increase, and this is given by 40 CFR 52.21(a)(2)(iv)(b) and 40 CFR 52.21(b)(3).

The "project", as defined by 40 CFR 52.21(b)(52) means "*a physical change in, or change in the method of operation of, an existing major stationary source.*" For purposes of this analysis, the "project" includes changes associated with the following emissions units: Granulation Plant. Based on the information presented in the application, no other physical changes or changes in the method of operation at the mill are associated with the granulator drum replacement project, and the project will not result in any increase in facility production rates.

As permitted, the new granulator drum satisfies the definition of a "replacement unit" as given by 40 CFR 52.21(b)(33), since all of the criteria listed in 40 CFR 52.21(b)(33)(i)(through (iv) are met as shown below. Also, per this definition, "no creditable emission reductions shall be generated from this project to replace the granulator drum assembly."

- Per 40 CFR 52.21(b)(33)(i), the emissions unit completely takes the place of the existing emissions unit, as follows:
    - The new granulator drum will completely take the place of the existing granulator drum;
- Per 40 CFR 52.21(b)(33)(ii), the emission unit is identical to or functionally equivalent to the replaced emissions unit, as follows;
    - Based on the information presented to DEQ and in the application, the replacement granulator drum will be functionally equivalent to the existing granulator drum. No other physical changes or changes in the method of operation at the mill are associated with the granulator drum replacement project, and the project will not result in any increase in facility production rates.
- Per 40 CFR 52.21(b)(33)(iii), the replacement unit does not alter the basic design parameters of the process unit, as follows:

- The "process unit" for purposes of this analysis is the granulation plant. The new granulator drum will do the same thing as the existing granulator drum. On this basis, the replacement granulator drum would not alter the basic design parameters of the process unit. (i.e., the drum replacement will not change the granulation plant).

- Per 40 CFR 52.21(b)(33)(iv), the replaced emission unit will be either permanently removed from the major stationary source or otherwise permanently disabled. Also, per 40 CFR 52.21(b)(33)(iv), the replaced emission unit will be permanently barred from operation by conditions in the PTC that are enforceable as a practical matter. If a replaced emissions unit (i.e., the existing granulator drum) is brought back into operation, it shall constitute a "new emissions unit."

Since the replacement granulation drum meets the replacement unit definition, it is considered to be an "existing emissions unit" for purposes of this analysis per 40 CFR 52.21(b)7)(ii).
This permit modification pertains only to "existing emissions units," therefore, the test under 40 CFR 52.21(a)(2)(iv)(c) is used to determine if the project is significant. This regulation reads as follows:

> *A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions (as defined in [40 CFR 52.21(b)(41)]) and the baseline actual emissions (as defined in [40 CFR 52.21 (b)(48)(i) and (ii)]), for each existing emissions unit, equals or exceeds the significant amount for that pollutant (as defined in [40 CFR 52.21(b)(23)]).*

This analysis was performed by the applicant and a summary of the results is provided in Table 5.1 in the Emissions Inventory Section above. Only fluoride emissions were reviewed for this source (not PM, NO_x, etc.), since this is the only pollutant emitted near significant levels, and therefore it warrants further review. The analysis was reviewed by DEQ and found to be consistent with DEQ methods. These results show that the project will not cause a significant emissions increase and, therefore, netting is not necessary and the project is not a major modification.

IDAPA 58.01.01.205.01 [40 CFR 52.21(r)(6) and (7)]. Upon review of the information provided by the applicant, there is "not a reasonable chance" that this project, that is not part of a major modification, may result in a significant emissions increase (based on fluoride). Therefore, the recordkeeping requirements under 40 CFR 52.21(r)(6) and (7) do not apply to this project.

IDAPA 58.01.01.209.04..... Revisions of Permits to Construct

For the proposed granulator drum replacement project, the public comment requirements under Subsections 209.01c, 209.02.a, and 209.02.b do not apply since this project will not result in an increase in emissions authorized the permit.

IDAPA 58.01.01.209.05 and 380..... Permit to Construct Procedures for Tier I Sources

Under 58.01.01.209.05.a, this PTC will be issued in accordance with IDAPA 58.01.01.209.01.a and b. Agrium may commence construction on this project after the PTC is issued. Agrium may also operate this source after issuance of the PTC, since compliance with this PTC would not violate any terms or conditions of the existing Tier I operating permit, and the requirements of IDAPA 58.01.01.380 and 209.05.a.iv may be met by incorporating the new applicable requirements established by this PTC at the time of renewal of the Tier I permit. It is also acknowledged that, per Section 209.05.b.iv, the existing Tier I permit does not prohibit any construction or change in operation that is included in this PTC.

IDAPA 58.01.01.210..... Demonstration of Preconstruction Compliance with Toxic Standards

Replacement of the granulation drum will not result in an increase in the potential emissions of any toxic air pollutants (TAPs). Actually, as a result of improvements to the granulator stack, the concentrations of TAPs received by receptors in the ambient air will most likely be reduced as a result of this project.

IDAPA 58.01.01.224..... Permit to Construct Application Fee

The applicant satisfied the PTC application fee requirement by submitting a fee of $1,000.00 at the time the original application was submitted, August 14, 2006.

IDAPA 58.01.01.225..... Permit to Construct Processing Fee

Potential emissions from the granulation plant will not increase as a result of this project. On this basis, the PTC processing fee is $250.00, since no engineering analysis was required for this permit action. No permit to construct can be issued without first paying the required processing fee.

IDAPA 58.01.01.300, 380..... Changes to Tier I Operating Permits

See information provided above under IDAPA 58.01.01.209.05.

IDAPA 58.01.01.591..... NEHAPS/MACT, 40 CFR 63 Subpart BB, for Phosphate Fertilizers Production Plants

No additional testing is required as a result of this project. Agrium will need to just continue meeting the annual testing requirements as prescribed in Section 2 of the PTC.

5.4 *Permit Conditions Review*

This section describes only those permit conditions that have been revised, modified or deleted as a result of this permit action. All other permit conditions remain unchanged.

Permit Condition 2.2

The PM process weight limitation had been added to the initial Tier I permit as a gap filling measure. Therefore, it has no been added to this underlying PTC at this time, since it is an applicable requirement for this Tier I source.

Permit Condition 2.4

To meet the requirements of IDAPA 58.01.01.205 [40 CFR 52.21(b)(33)(iv)], the replaced emission unit (i.e., the existing granulation drum that is being replaced) will be permanently barred from operation by this condition in the PTC that is enforceable as a practical matter. If the replaced emissions unit (i.e., the existing granulator drum that is being replaced) is brought back into operation, it shall constitute a "new emissions unit."

PTC General Provisions

The existing PTC General Provisions were replaced by the most recent version of the General Provisions for the purpose of being consistent with currently issued PTCs.

6. PERMIT FEES

DEQ received a $1,000.00 PTC application fee (IDAPA 58.01.01.224) from Agrium on August 14, 2006. A $250.00 PTC processing fee (IDAPA 58.01.01.225) was received on December 12, 2006. The processing fee is $250.00, since no engineering analysis was required for this permit action. The change in potential emissions associated with this modification to the granulation plant is given in Table 6.1.

Nu-West is a major facility as defined in IDAPA 58.01.01.008.10. Therefore, Tier I registration fees are applicable in accordance with IDAPA 58.01.01.387. As of November 21, 2006, the balance due for Tier I fees is $0.00.

Table 6.1 PTC PROCESSING FEE TABLE

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO_X	0.0	0	0.0
SO_2	0.0	0	0.0
CO	0.0	0	0.0
PM_{10}	0.0	0	0.0
VOC	0.0	0	0.0
TAPS/HAPS	0.0	0	0.0
Total:	0.0	0	0.0
Fee Due	$ 250.00		

7. PERMIT REVIEW

7.1 *Regional Review of Draft Permit*

The draft PTC and Statement of Basis were provided to the Pocatello Regional Office on November 16, 2006 for review. No changes were requested.

7.2 *Facility Review of Draft Permit*

The draft PTC and Statement of Basis were provided to Agrium for review on November 17, 2006. The following requested changes were received on November 21, 2006, and the permit was changed as noted:

- The date in the headers was removed per current format requirements.
- The process weight rate condition was added to the PTC. It is an applicable requirement so it's appropriate for this to appear in a PTC in addition to just appearing in the Tier I.
- The stack was added to the list of changes shown in Permit Condition 1.1.
- A section was added to the Regulatory Review Section of the Statement of Basis under IDAPA 58.01.01.591 (NESHAPS/MACT) that indicates additional testing is not necessary as long as Agrium continues to meet the annual test requirements.

7.3 *Public Comment*

In accordance with IDAPA 58.01.01.204 and 209.05.a, an opportunity for public comment is not required for this PTC because it is a PTC "revision."

8. RECOMMENDATION

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommend that Agrium be issued final PTC No. P-060324 for the granulation drum replacement project. No public comment period was required, no entity has requested a comment period, and the project does not involve PSD requirements.

KH/bf Permit No. P-060324

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